Cronotermostato Digitale

Eco-X

Manuale d'Uso

Digital Chronothermostat Manual User

CE

Vemer SPA

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SAFETY WARNINGS

During the installation and operation of the instrument, follow the instructions below:

1) **The instrument should be installed by qualified personnel**
2) **Before gaining access to the connection terminals make sure that the conductors to be connected to the instrument or already connected are not live**
3) **Do not power or connect the instrument if any part of it is damaged**
4) **Follow the connection diagrams in this manual and on the instrument**

TECHNICAL SPECIFICATIONS

- Daily (**Eco.X-D**) or weekly (**Eco.X-W**) programming versions
- Power supply: 2x1,5 V micro stylus alkaline batteries (AAA)
- Autonomy: 12 months minimum (with alkaline batteries 1100 mA/h at 23 °C)
- Charge reserve: about 2 minutes for batteries replacement
- Battery charge condition indication with “failed batteries” signalling
- Output: bistable relay with max. 8(5)A (250V AC) exchange contact
- 2 temperatures, **“SUN”** and **“MOON”**, are settable by means of a trimmer:
  - **“SUN ”** : +2 °C ÷ +30 °C **“comfort”** temperature regulation
  - **“MOON ”** : +2 °C ÷ +22 °C **“saving”** temperature regulation
- ON/OFF temperature regulation with fixed differential of 0,3 °C
- Clock: weekly/daily
- Eco.X-W: language selection for the display of the day of the week chosen between: **Italian, English, French, German, Spanish**
- Programming resolution: 1h
- Temperature measured resolution: 0,1 °C
- Precision: ±0,5 °C
- Temperature measurement update every 60s
- Temperature measured: 0 °C ÷ +40 °C
- Operating temperature: 0 °C ÷ +50 °C
- Temperature regulation field: +2 °C ÷ +30 °C
- Storage temperature: -10 °C ÷ +65 °C
- LCD display with visualization of temperature, time, daily programme and relay activation state and day of the week (in **Eco.X-W** only)
- Protection level: IP40
- Test on each device

Eco.X digital chronothermostat

Code	Model	Description
VN161600	Eco.X-D	Weekly chronothermostat White
VN160800	Eco.X-W	Daily chronothermostat White
VN975900	Cover Aluminium-raider CR	Cover for Eco.X chronothermostat
VN976700	Cover Grigio-iron AC	Cover for Eco.X chronothermostat
VN977500	Cover Nero-lux NR	Cover for Eco.X chronothermostat
VN978300	Cover Blu-lagon BJ	Cover for Eco.X chronothermostat
VN979100	Cover Metallic GF	Cover for Eco.X chronothermostat

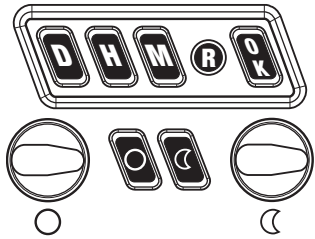
DISPLAY AND PROGRAMMING

■ LCD DISPLAY KEYS AND HANDLES

The LCD display shows the following information:

- ① **"SUN"/"MOON"** time programming with 24 **"SUN"** symbols and 24 **"MOON"** symbols related to 0 ÷ 23 time.
- ② **DAY** (weekly version only) day of the week in 5 languages selected by the user.
- ③ **TIME** shows the time (HH:MM).
- ④ **TEMPERATURE** shows the temperature (in °C).
- ⑤ **FIRE "** **"** shows the relay activation

■ KEYS AND HANDLES



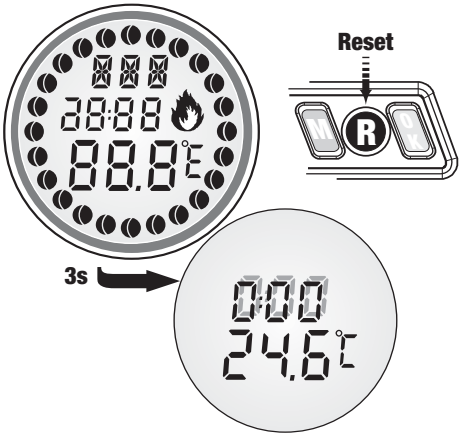
- **D** day of the week setting (in the weekly version only)
- **H** increases the hour field
- **M** increases the minutes field
- **R (Reset)** resets the functions to the default values
- **OK** programming, language selection, exit to normal operating mode
- **"SUN ◐"** **"comfort"** temperature indication; during programming it sets the **"comfort"** temperature
- **"MOON ☾"** **"saving"** temperature indication; during programming it sets the **"saving"** temperature
- **SUN HANDLE "○"** **"comfort"** temperature regulation
- **MOON HANDLE "☾"** **"saving"** temperature regulation

- Hold down the keys to activate their respective operations. During the programme or language setting, if no key is pressed for 30s, the chronothermostat returns to normal operating mode and memorizes the modified operations.
- By pressing **"H"** or **"M"**, the value in the field to be modified increases with constant acceleration.

INITIAL START UP / RESET

- Insert the batteries and press **“R” (Reset)** with a pencil or a pointed object.

■ **This operation will reset all the data and programmes previously set, which will be initialised as default.**
For all the days of the week this condition will set the following data:
“SUN ” comfort temperature from 07:00 to 21:59
“MOON ” saving temperature from 22:00 to 06:59



- All the segments of the display will be switched on and the relay will be activated for about 3s.
- The display will be switched off, the clock will restart from **“00:00”** on Monday (in **Eco.X-W** version only).
- Until the first clock set the display shows the ambient temperature and the time (flashing).
- Regulation begins only after the time setting.

CLOCK SETTING

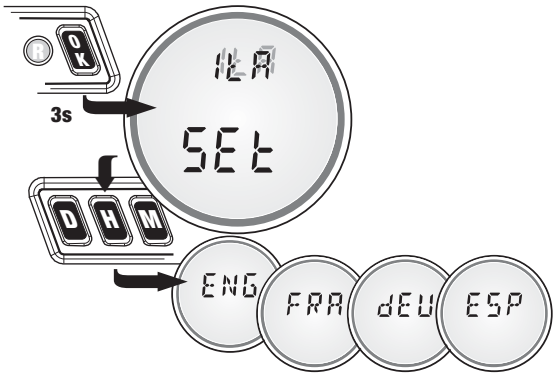
- Press **"D"**, **"H"** and **"M"** to set respectively the day (in **Eco.X-W** version only), the hour and the current minutes.
- Press one of these keys to increase their respective value of one (**"H"** and **"M"** have the autorepeat function).
- Once the clock has been set, the chronothermostat moves to the automatic operation.

Note: at any time it is possible to change the current day and time by pressing "D", "H" and "M" and following the above mentioned instructions.

LANGUAGE SELECTION

AVAILABLE IN CHRONOTHERMOSTAT Eco.X-W ONLY

- Press **"OK"** for at least 3 seconds to modify the language display of the day of the week



- The available languages are (in order):

  — Italian (ita)
  — English (eng)
  — French (fra)
  — German (deu)
  — Spanish (esp)

- Press **"D"**, **"H"** or **"M"** to select the language
- It is possible to abandon the selection by pressing **"OK"** or after 30s from the last key pression

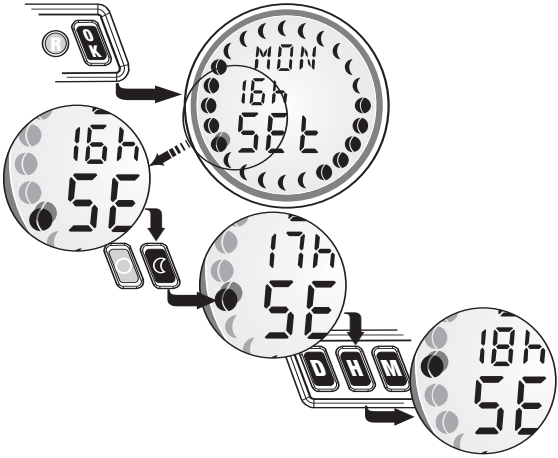
AUTOMATIC OPERATION

- In automatic operation the temperature regulation is active and the LCD display shows the following information:

— Current time (**HH:MM**)
— Temperature measured
— Temperature unit of measure (**°C**)
— **FIRE "** **"** symbol (if the relay is ON)
— **"SUN** **"** or **"MOON** **"** for each time of the day as per current daily programme
— Day of the week in the selected language (in **Eco.X-W** version)

PROGRAMME SETTING

- Once the device is operating, the chronothermostat is set with the default programme (**"SUN ☼"** from 07:00 to 21:59 and **"MOON ☾"** from 22:00 to 06:59)
- Press **"OK"** to modify this programme



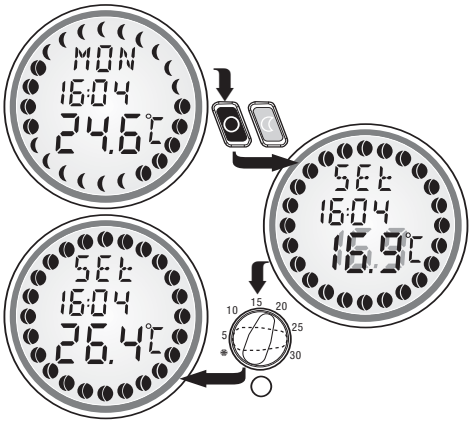
- The display shows the word **"SET"** instead of the temperature, **"TIME"** field shows the current time (without minutes), the **"SUN"/"MOON"** symbol, relating to the displayed time, flashes and **"DAY"** field shows the day of the current week (weekly version only)
- Press **"☼"** or **"☾"** to set, for the time displayed, respectively the **"comfort"** or **"saving"** temperature (see paragraph **"TEMPERATURES SETTING"**).
  Once the programme has been set, it is possible to move to the next hour and update the **"HOUR"** field (the flashing graphic field will step up clockwise).
- To modify the programme of a particular hour, press **"H"** till reaching the chosen hour (each time the key is pressed time increases of an hour without modifying the programme; the autorepeat function is active) then press **"☼"** or **"☾"** to set the temperature desired

- In **Eco.X-W** model only: press **"D"** to change the day of the week; each time this key is pressed the day increases of one.
- Press **"OK"** to return to the automatic operation
- If no key is pressed for 30s, the chronothermostat will abandon the programming function and memorize the modified settings

Note:
During the programme setting, regulation and relay operation are suspended

TEMPERATURES SETTING

- **"Comfort" (SUN)** and **"saving" (MOON)** temperatures are set by means of two 3/4 turn handles.
- Press **" ☼ "** or **" ☾ "** in **"TEMPERATURE"** field to display the temperature (flashing) set by means of the respective handle; in the **"DAY"** field the word **"SET"** is displayed
- Rotate the respective handle to modify the temperature.
  The temperature stops flashing for about 2s



- Press **" ○ "** or **" ☾ "** a second time to return to the display of the temperature measured
- It is possible to return to the automatic operation by pressing **"OK"** too

■ **It is also possible to modify the "SUN"/"MOON" temperatures without pressing the respective keys, operating just the handles. In this case the set temperature is not displayed**

Note:
If no key is pressed or if the handle is not operated for about 30s, the chronothermostat will return to the automatic operation and memorize the modified settings

MANUAL OPERATION

- Press **" ○ "** or **" ☾ "** for at least 3s to move from automatic to manual operation.
- In manual operation the regulation temperature is prefixed in **"SUN "** or **"MOON "** for each time of the day.
- The operation type is indicated by the word **"MAN"** in **"DAY"** field and by all the suns and moons switched on.
- Press **" ○ "** or **" ☾ "** to modify the regulation temperature.

In **"DAY"** field the word **"SET"** is shown and the temperature begins to flash. To change the temperature operate the respective handle (as in the automatic operation).

- Temperature can be modified without pressing one of the **"☼"** or **"☾"** keys too. In this case the set temperature is not displayed.
- During the setting it is possible to move from **"SUN"** temperature to the **"MOON"** one and vice versa by pressing the respective key.
- Press **"☼"** or **"☾"** or **"OK"** again to move back to the manual operation. 30s after the last regulation the chronothermostat automatically returns to the manual operation.

■ **In MANUAL operation it is possible to modify hours and minutes, display "SUN" and "MOON" temperatures.**
On the contrary, it is not possible to modify neither the set programmes nor the selected language (in Eco.X-W).

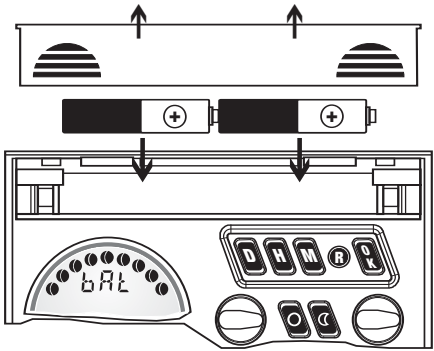
■ **If the day of the week is modified (in Eco.X-W version only) you move back to the AUTOMATIC operation.**

- Press **"☼"** or **"☾"** for at least 3s to move back to the automatic operation.

English

REPLACING THE BATTERIES

- When the batteries are close to exhaustion, the display will flash and show the word **"BAT"** in **"DAY"** field (both in **Eco.X-D** and in **Eco.X-W**).
- The chronothermostat operates regularly, regulation included
- When batteries are removed, the display switches off and all the functions are interrupted, except for the clock update, until the nex batteries are inserted



■ **The maximum battery replacement time is about 2 minutes**

- When the new batteries are inserted the chronothermostat immediately restarts. In case this does not happen press the **Reset "R"** key.

REFERENCE STANDARDS

■ Conformity to the EU directives:
73/23/CEE, modified by **93/68/CEE** (low voltage)
89/336/CEE, modified by **92/31/CEE** and **93/68/EEC** (EMC)
is declared with reference to the following standards:

SAFETY

- **EN 60730-2-9**: Automatic electric command devices for household and similar use. **Part 2**: particular provisions for thermosensitive command devices.

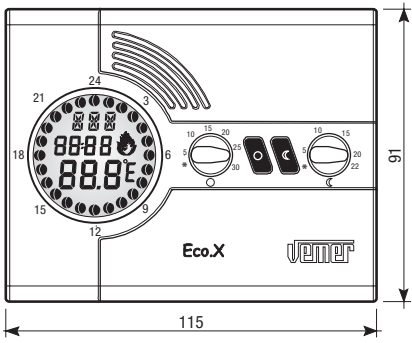
- **EN 60730-2-7**: Automatic electric command devices for household and similar use. **Part 2**: particular provisions for timers.

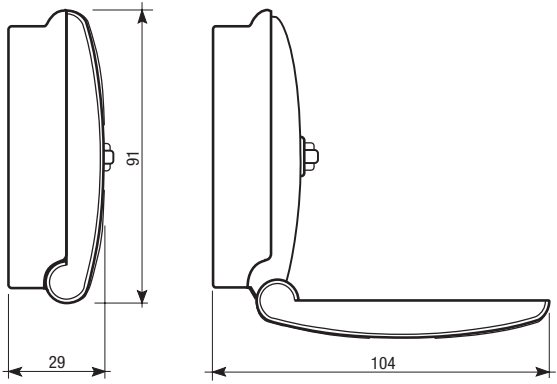
ELECTROMAGNETIC COMPATIBILITY

- **EN 55014-1**: General regulation on the immunity in household, commercial and light industrial environments.
Electromagnetic compatibility – Provisions for electrical appliances and tools and similar. **Part 1**: Emission.

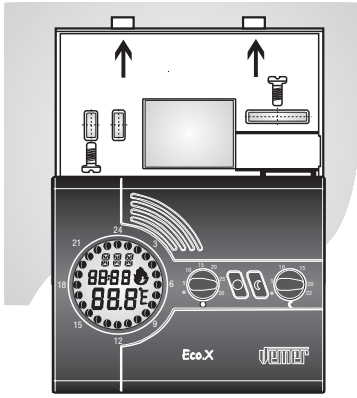
- **EN 55014-2**: Electromagnetic compatibility – Provisions for electrical appliances and tools and similar. **Part 2**: Immunity.

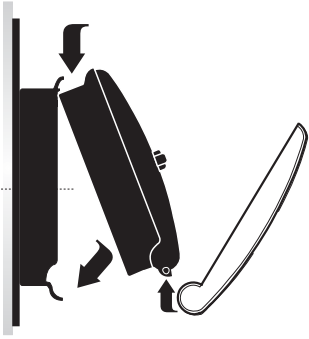
DIMENSIONS

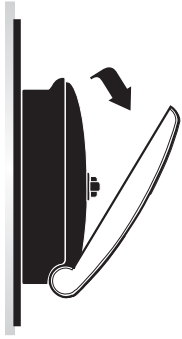




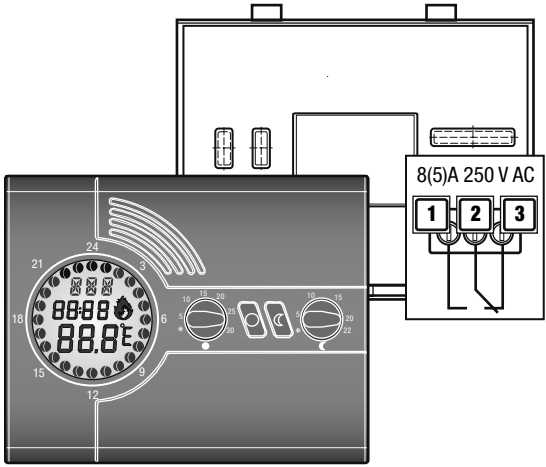
MOUNTING







CONNECTION DIAGRAM



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